2 0 FEB 2001 LC08 Rec'd PCT/PTO EXPRESS MAIL LABEL No EF321691171US 20 FEBRUARY 2001 TRANSMITTAL LETTER TO THE UNITED STATES ATTORNEY'S DOCKET NO DESIGNATED/ELECTED OFFICE (DO/EO/US) A34032 PCT USA CONCERNING A FILING UNDER 35.U.S.C. 371 O9/763246 INTERNATIONAL APPLICATION NO INTERNATIONAL FILING DATE PRIORITY DATE CLAIMED PCT/CN99/00166 25 OCTOBER 1999 04 DECEMBER 1998 TITLE OF INVENTION METHOD OF USING WHOLE DIGITAL CODE TO ASSIGN ADDRESS FOR COMPUTER APPLICANT(S) FOR DO/EO/US Kenping XIE and Mengen WEI Applicant herewith submits to the United States Designated /Elected Office (DO/EO/US) the following items and other information: 1. [x] This is a FIRST submission of items concerning a filing under 35 U.S.C. 371. 2. [] This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371. 3. [x] This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(I). 4. [] A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date. 5. [] A copy of the International Application as filed (35 U.S.C. 371(c)(2)) a. [] is transmitted herewith (required only if not transmitted by the International Bureau). b. [] has been transmitted by the International Bureau. c. [] is not required, as the application was filed in the United States Receiving Office (RO/US). 6. A translation of the International Application into English (35 U.S.C. 371(c)(2)). 7. [] Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) a. [] are transmitted herewith (required only if not transmitted by the International Bureau). b. [] have been transmitted by the International Bureau [1] have not been made; however, the time limit for making such amendments has NOT expired. d. [] have not been made and will not be made. 8. [TA translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). 9. [x] An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). 10. [A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)). Items 11. to 16. below concern other document(s) or information included: 11. [] An Information Disclosure Statement under 37 CFR 1.97 and 1.98. 12. [An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.

- 13. [] A FIRST preliminary amendment.
- [] A SECOND or SUBSEQUENT preliminary amendment.
- 14 [] A substitute specification.
- 15. [] A change of power of attorney and/or address letter.
- 16. [x] Other items or information:

Copy of PCT International Application as filed WO00/34884 Translation of application into English

The Solution for Assigning Addresses to Online Computers in Full Digital Code

FIELD OF THE INVENTION

This invention relates to a solution for assigning the addresses to the online computers, especially, it relates to the solution for assigning the addresses to the online computers in full digital code.

BACKGROUND OF THE ART

With the rapid development of the technology, the world has entered into the information era of the data communication. The Internet, which was established by U. S. A. in 1968 and is considered to be the pioneer of the information highway, is the most famous one among the data networks all over the world. By now, a great number of the countries and areas have joined the Internet family. China already has several international gateways linking with the Internet – the biggest international web in the world, and the user terminals are increasing at a remarkable speed.

In order to transfer correctly the information to its destination on the Internet, each computer connected onto the Internet must have one unique address. For the time being, there are three kinds of the address coding solutions currently in use internationally and domestically. On is IP address, which is constituted by four fields of the digits separating by the decimal points; the other one is the "domain name", which is constituted normally by not more than five sets of the character string separating by the decimal points; and the last one is the "Chinese domain name hierarchy system", which is constituted by three levels of the

domain name separating by the decimal points and the slash. Although the above address coding solutions can assign each online computer one unique address, but they all have the shortcomings of the complexity, not unified and hard to remember or input.

SUMMARY OF THE INVENTION

The purpose of this invention is to overcome the shortcomings of the current online computer address coding solutions mentioned above. This invention provides a solution of full digital coding, which is simple, easy to use, and easy to remember, which can be input not only by using the keyboard of the computer, but also by accessing an E-mail box using the telephone keyboard input and by browsing the Internet.

The technical project to implement this invention utilizes the solution for assigning the addresses to the online computers in full digital code. It has the following characteristics: it is constituted by the full digital code address, which is composed of the online number, the telephone number, and the category number. Here, the said online number refers to the digital number of the established network site, which is specified by the country or area; the said telephone number includes the combination of the IDDD code of the user's country, the area code of the domestic DDD of the user's area, and the telephone number of the user's company or home; and the category number is the digital number specified respectively by the country or area for demarcating uniformly the business category.

A method for accessing an E-mail box and browsing the Internet by using the coded addresses of the above solution, wherein: the E-mail box can be accessed or the Internet can be browsed by inputting to the modem of the computer by dialing up a keyboard of a dial-up telephone or the keyboard of the computer; by linking the corresponding digital code; and by converting it with a dedicated software.

The full digital code address (FDCA) can be interpreted by the dedicated interpreting software into IP address, or the domain name, or Chinese domain name hierarchy system, and each address corresponds appropriately to only one existing IP address, or the domain name, or Chinese domain name hierarchy system.

Since the above mentioned technical project is adopted by this invention, accessing an E-mail box, or browsing the Internet will be simple, and easy to remember and administrate, while each assigned address will never be repeated.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The advantages and the features of this invention will be explained further by the following embodiment.

The solution for assigning the addresses to the online computers by using the full digital code: the FDCA (full digital code address) is composed of the online number, the telephone number, and the category number. The said online number refers to the digital number of the established network site specified by the country or area. For example, the online number of "Shanghai hotline" of Shanghai, China is "8888". The said telephone number includes the combination of the IDDD code of the country where the user stays; the area code of the domestic DDD of the user's area; and the telephone number of the user's company or home. For example, in the telephone number "008602162572047", "0086" is China's IDDD code, "021" is the

area code of the domestic DDD code for Shanghai, and "62572047" is the user's telephone number. The combination of these three parts of the numbers make up the "telephone number" part in the FDCA. the key point of FDCA, it is simple, and easy to remember, and will never The category number is the digital number specified be repeated. respectively by the country or area for demarcating uniformly the business This part of the digital numbers can be set according to the regulations of the user's country or area, or the network site. It can be specified as big categories or subcategories, usually, only the big categories are specified. When the big category is specified by the method of the term selection, the subcategory digital number can be directed after the category numbers. In practice, if some clients want their addresses to be encrypted, the encrypted digital number can also be directed after the online number of the telephone number. And this encrypted number can be proposed by the client himself and, of course, must be registered first by the address coding organization. The client only has to input continuously all of the correct numbers either by telephone dial up or computer keyboard input, which is not only convenient but also quick and efficient to get online after linking.

Taking into consideration that a lot of the users getting online for the purpose of sending or receiving the E-mails, some even only apply for the E-mail operation mode, therefore, when a user applies for an Internet account number, the Internet service provider always offers him an E-mail box. The name of this E-mail box is usually composed of three parts, that is, the user's name, the mail server and the symbol "@". Usually, a character string is used to express this name. For the purpose of easy to input uniformly, the addresses of the E-mail boxes can also be coded by the

full digital code, which is composed of the user name digital number and the digital number of the domain name of the mail server where the mail box is located.

When the E-mail box is accessed and the Internet is browsed by using the above coding solution, the E-mail box can be accessed or the Internet can be browsed by inputting to the modem of the computer by dialing up a keyboard of a dial-up telephone or the keyboard of the computer; by linking the corresponding digital code; and by converting it with a dedicated software. In order to be used commonly worldwide, it is necessary to set up a converter which can enable the digital addresses of this invention corresponding appropriately to the existing Internet domain This converter is composed of interpreting names and IP addresses. Once a FDCA is designated, it can be converted into a software. respective IP address, or a domain name, or a Chinese domain name hierarchy system, and each FDCA corresponds only to one existing IP address, or a domain name, or a Chinese domain name hierarchy system. Because the computer can only recognize IP address, therefore, utilization of this invention, except establishing a converter to convert the FDCA into the worldwide universal domain name and IP address, a server must be designated to interpret the FDCA of this invention into an IP address, so that the computer can recognize and function.

This invention is suitable for coding the online user address of various networks. The computer from mode 486 and up and its adaptable modem can be used as the user terminal. In the application, not only the software of the operation system is used, but also the support of the appropriate dialing software is needed.

This invention provides a solution that not only assigning a fixed static

address to each online computer, but also assigning a dynamic address to any temporary online computer.

To make it convenient for the users to use the digital address of the invention, this invention provides an auxiliary information database. The FDCA of this invention and the established online addresses, including the domain names, IP addresses, and Chinese domain name hierarchy system, are listed and are respective with each other. These addresses can be uploaded into the network sites. Once the database is opened by the user, the required online address can be inquired, the users are enabled to choose a more convenient input way when getting online. The information in this database can also be compiled into files and be provided to the users for reading and inquiring.

CLAIMS

- 1. A solution for assigning the addresses to the online computers by using the full digital code, wherein: it is constituted by the full digital code address (FDCA), which is composed of the online number, the telephone number and the category number. Here, the said online number refers to the digital number of the established network site, which is specified by the country or the area; the said telephone number includes the IDDD code of the country where the user stays, the area code of the domestic DDD of the user's area, and the telephone number of the user's company or home; and the category number is the digital number specified by the country or area for demarcating uniformly the business category.
- 2. A solution according to Claim 1, for accessing the Internet by using the address coding solution, wherein, the E-mail box can be accessed or the Internet can be browsed by inputting to the modem of the computer by dialing up a keyboard of a dial-up telephone or the keyboard of the computer; by linking the corresponding digital code; and by converting it with a dedicated software.
- 3. A solution according to Claim 1, for assigning the addresses to the online computers by using the full digital code, wherein, the FDCA can be interpreted by the dedicated interpreting software into an IP address, or a domain name, or a Chinese domain name hierarchy system, and each FDCA corresponds appropriately to one existing IP address, or domain name, or Chinese domain name hierarchy system.
- 4. A solution according to Claim 1, for assigning the addresses to the online computers by using the full digital code, wherein, the subcategory number can be directed after the category number by the said FDCA.
 - 5. A solution according to Claim 1, for assigning the addresses to the

online computers by using the FDCA, wherein, the encrypted digital number can be directed after the online number by the said FDCA.

- 6. A solution according to Claim 1, for assigning the addresses to the online computers by using FDCA, wherein, this invention not only can assign a fixed static address to each online computer, but also can assign a dynamic address to any temporary online computer.
- 7. A solution according to Claim 1, for assigning the addresses to the online computers by using FDCA, wherein, the said coding solution can also be used to assign the address of the mail box, wherein the address is composed of the user name digital number and the domain name of the mail server where the mail box is located.

ABSTRACT

This invention relates to a solution for assigning the addresses to the online computers by using the full digital code. It is constituted by the FDCA (full digital coding address), which is the combination of the online number, the telephone number and the category number. E-mail box address, which is composed of the user name digital number and the domain name digital number of the mailbox server where the mailbox is located, can also be assigned by FDCA. The E-mail box can be accessed or the Internet can be browsed by inputting to the modem of the computer by dialing up a keyboard of a dial-up telephone or the keyboard of the computer; by linking the corresponding digital code; and by converting it with a dedicated software. It is easy to remember and administer, and the assigned addresses will never be repeated.

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COMBINED DECLARATION AND POWER OF ATTORNEY

(Original, Design, National Stage of PCT, Divisional, Continuation or C-I-P Application)

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name; I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

This declaration is of the following type:

| [] | original |
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| [] | design |
| Ø | national stage of PCT. |
| Ð | divisional |
| 0 | continuation |
| H | continuation-in-part (C-I-P) |
| the spe | ecification of which: (complete (a), (b), or (c)) |
| (a) [| is attached hereto. |
| (p) [] | was filed on as Application Serial No. and was amended on (if applicable). |
| (c) [X] | was filed on as Application Serial No. and was amended on (if applicable). was described and claimed in PCT International Application No. Pct/chqq/oibfiled on October 25, 1999 s amended or (if applicable) |
| and wa | s amended on (if applicable). |
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| 1 | Acknowledgement of Review of Papers and Duty of Candor |
| ្ឌឹរណ៍ | I hereby state that I have reviewed and understand the contents of the above identified specification, |
| includi | ng the claims, as amended by any amendment referred to above. |
| | I acknowledge the duty to disclose information which is material to the patentability of the subject matter |

I acknowledge the duty to disclose information which is material to the patentability of the subject matter claimed in this application in accordance with Title 37, Code of Federal Regulations § 1.56.

[] In compliance with this duty there is attached an information disclosure statement. 37 CFR 1.98.

Priority Claim

I hereby claim foreign priority benefits under Title 35, United States Code, § 119(a)-(d) of any foreign application(s) for patent or inventor's certificate or of any PCT International Application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT International Application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application on which priority is claimed

(complete (d) or (e))

- (d) [] no such applications have been filed.
- (e) [X] such applications have been filed as follows:

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| COUNTRY | APPLICATION NO. | DATE OF FILING (day, month, year) | DATE OF ISSUE (day, month, year) | PRIORITY CLAIMED UNDER 35 USC 119 |
|--------------|---------------------------------------|---------------------------------------|-------------------------------------|--------------------------------------|
| CN | 98122785.6 | 04.12.1998 | | (x) YES NO [] |
| | | | | [] YES NO [] |
| | | | | [] YES NO [] |
| L FOREIGN AP | PLICATION(S). IF ANY, FILED MORE THAN | 12 MONTHS (6 MONTHS FOR DESIGN) PRICE | OR TO SAID APPLICATION | |
| | | | | [] YES NO [] |
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| | | | | [] YES NO [] |

Claim for Benefit of Prior U.S. Provisional Application(s)

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below:

| | Provisional Application Number | Filing Date |
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Claim for Benefit of Earlier U.S./PCT Application(s) under 35 U.S.C. 120

(complete this part only if this is a divisional, continuation or C-I-P application)

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) or PCT-international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior application(s) in the manner provided by the first paragraph of Title 35, United States Code § 112, I acknowledge the duty to disclose information as defined in Title 37, Code of Federal Regulations, § 1.56 which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:

| (Application Senal No.) | (Filing Date) | (Status) (patented, pending, abandoned) |
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| (Application Serial No.) | (Filing Date) | (Status) (patented, pending, abandoned) |
| X- | Power of Attorney | · - |

As a named inventor, I hereby appoint Dana M. Raymond, Reg. No. 18,540; Frederick C. Carver, Reg. No. 17,021; Francis J. Hone, Reg. No. 18,662; Joseph D. Garon, Reg. No. 20,420; Arthur S. Tenser, Reg. No. 18,839; Ronald B. Hildreth, Reg. No. 19,498; Thomas R. Nesbitt, Jr., Reg. No. 22,075; Robert Neuner, Reg. No. 24,316; Richard G. Berkley, Reg. No. 25,465; Richard S. Clark, Reg. No. 26,154; Bradley B. Geist, Reg. No. 27,551; James J. Maune, Reg. No. 26,946; John D. Murnane, Reg. No. 29,836, Henry Tang, Reg. No. 29,705; Robert C. Scheinfeld, Reg. No. 31,300, John A. Fogarty, Jr., Reg. No. 22,348, Louis S. Sorell, Reg. No. 32,439 and Rochelle K. Seide Reg. No. 32,300 of the firm of BAKER & BOTTS, L.L.P., with offices at 30 Rockefeller Plaza, New York, New York 10112, as attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section

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1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

FULL NAME OF SOLE LAST NAME FIRST NAME MIDDLE NAME OR FIRST INVENTOR kenping Xìe STATE or POREIGN COUNTRY COUNTRY OF CITIZENSHIP RESIDENCE & CITIZENSHIP PRC PRC Shanghai POST OFFICE ADDRESS STATE or COUNTRY ZIP CODE POST OFFICE CITY ADDRESS 3RD Floot, No.9, Lane 11, Tian Shan Road PRC 200335 Sharahai SIGNATURE OF INVENTOR DATE Tello 2001.2.1 FULL NAME OF SECOND FIRST NAME MIDDLE NAME LAST NAME COINT INVENTOR IF ANY Wei Mengen RESIDENCE & CITIZENSHIP CITY STATE or FOREIGN COUNTRY COUNTRY OF CITIZENSHIP PRC Shanghai PRC POST OFFICE ADDRESS POST OFFICE STATE or COUNTRY ZIP CODE ADDRESS Shanghar PRC ಎ೦೦೫೦ Room 104, No. 23, Lane 440, Xiao Mu Qiao Road SIGNATURE OF INVENTOR DATE 2001.2.1 FULL NAME OF THIRD MIDDLE NAME LAST NAME FIRST NAME JOINT INVENTOR IF ANY RESTDENCE & CITIZENSHIP CITY STATE or FOREIGN COUNTRY COUNTRY OF CITIZENSHIP POST OFFICE POST OFFICE ADDRESS CITY STATE or COUNTRY ZIP CODE ADDRESS DATE SIGNATURE OF INVENTOR FULL NAME OF FOURTH LAST NAME FIRST NAME MIDDLE NAME JOINT INVENTOR IF ANY RESIDENCE & CITIZENSHIP STATE or FOREIGN COUNTRY CITY COUNTRY OF CITIZENSHIP POST OFFICE POST OFFICE ADDRESS CITY STATE or COUNTRY ZIP CODE ADDRESS DATE SIGNATURE OF INVENTOR FULL NAME OF FIFTH LAST NAME FIRST NAME MIDDLE NAME JOINT INVENTOR IF ANY RESIDENCE & CITIZENSHIP STATE or FOREIGN COUNTRY COUNTRY OF CITIZENSHIP POST OFFICE POST OFFICE ADDRESS CITY STATE or COUNTRY ZIP CODE ADDRESS DATE SIGNATURE OF INVENTOR FULL NAME OF SIXTH LAST NAME FIRST NAME MIDDLE NAME JOINT INVENTOR IF ANY RESIDENCE & CITIZENSHIP CITY STATE of FOREIGN COUNTRY COUNTRY OF CITIZENSHIP POST OFFICE POST OFFICE ADDRESS CITY STATE or COUNTRY ZIP CODE ADDRESS DATE SIGNATURE OF INVENTOR